VIRGINIA DEPARTMENT OF EDUCATION

SPEECH-LANGUAGE SEVERITY RATING SCALES

Severity rating scales are valuable tools for describing the child's speech-language impairment, communicating with eligibility and IEP team members, and assuring consistency among speech-language pathologists in the division. The presence of a severity rating on any of the four scales does not guarantee eligibility; rather, it describes the results of the speech-language assessment in consistent terms. The eligibility committee will consider the severity rating, in conjunction with other information, as it determines eligibility. Eligibility is based on (1) the presence of a speech-language impairment, (2) that has an adverse educational impact, and (3) that results in the need for special education (specialized instruction) and related services (services required for the student to benefit from special education). See the eligibility section of these guidelines for further information on eligibility.

Further, a particular severity rating does not specify or predict a certain level of service. The level of service is determined by the goals, objectives/benchmarks specified by the IEP team. See the IEP section of this manual for further information on IEP development and decision-making.

After indicating the severity rating in the columns, compare the rating score to the functional narrative. If the rating and overview do not match, consider the data used and select the functional narrative that best describes the student.

When completing ratings in multiple areas, complete all pages. Individual ratings are reviewed and functional narratives are selected to describe performance for each area. Service recommendations are based on the area with the most severe rating. Do not add or average separate rating scales to determine severity.

SEVERITY RATING SUMMARY SHEET

Name _____ DOB _____

Date Completed _____Speech-Language Pathologist _____

Record points assigned for each factor considered in each area.

AREAS	FACTORS CONSIDERED				TOTAL POINTS	OVERALL FUNCTIONAL LEVEL
	A	B	C	D		
Articulation						
Language						
Voice						
Fluency						

Do not add or average separate rating scales to determine severity.
See individual severity rating scales for full description of factors considered and overall functional levels.

Overall Functional Level		
Level 0	0-3 points	No apparent problem
Level 1	4-6 points	Mild
Level 2	7-9 points	Moderate
Level 3	10-12 points	Severe

The presence of a severity rating on any of the four scales does not guarantee eligibility; rather, it describes the results of the speech-language assessment in consistent terms. The eligibility committee may consider the severity rating, in conjunction with other information, as it determines eligibility.

Eligibility is based on (1) the presence of a speech-language impairment,
(2) that has an adverse educational impact, and
(3) that results in the need for special education (specialized instruction) and related services (services to benefit from special education).

A particular severity rating does not specify or predict a certain level of service.

ARTICULATION SEVERITY RATING SCALE

An articulation/phonological impairment is characterized by a failure to use speech sounds that are appropriate for a person's age and linguistic dialect. Such errors in sound productions may interfere with intelligibility, social communication, and/or academic and vocational achievement.

Students cannot be considered to have an articulation/phonological impairment based on characteristics that are consistent with cultural and/or linguistic diversity. Students who use American Sign Language or other alternate forms of communication (e.g., augmentative/alternative communication) should be assessed in their primary mode of communication.

Children who evidence problems with hearing, structure and function of the speech mechanism (e.g., cleft palate), or motor speech difficulty (e.g., apraxia) should be viewed differently than those with more common developmental speech sound disorders. The presence of such etiological variables would suggest a high priority for intervention. After intervention, when the child has reached a plateau in his/her motor skills and has mastered compensatory strategies, the child may not require services.
This rating scale represents the most current research in the area of articulation and phonology at the time of printing (2005).

The presence of an articulation/phonological impairment does not guarantee the child's eligibility for special education.

Evaluation Data[1]

The following measures are appropriate for use in determining the presence of an articulation/phonological impairment:

speech sample
contextual probe
structured observation
classroom work
other curriculum/academic results
standardized test(s)
teacher report, interview, or checklist
child report, interview, or checklist
parent report, interview, or checklist

NOTE: Teacher, child, and parent reports, interviews, or checklists are not sufficient evidence by themselves and must be supported with additional data.

Overall Functional Level

[1] Adapted from Connecticut State Department of Education. (1999). Guidelines for Speech and Language Programs. Vol. II: Determining Eligibility for Special Education Speech and Language Services.

The speech-language pathologist should complete the attached rating scale first, adding the points assigned to each factor. Then the total points should be applied to the Articulation Rating Scale Overall Functional Level to determine an overall severity rating.

Articulation/Phonological Measures

The severity scale uses the following measures. Some measures may be more important than others at certain ages. The following guidelines may be helpful:

> Children 3-5 years of age: Intelligibility, severity, process usage, and stimulability are most important.
>
> Children 6-9 years of age: Children in this age range are typically those for whom speech sound production norms and stimulability will have greatest significance. In addition, social and academic variables should be given stronger consideration.
>
> Children above the age of 9 years: Children in this age range are those for whom social and academic/vocational considerations are of high importance.

Intelligibility
Select 100 consecutive words from contextual speech. Determine the percentage of words understood based on a tape-recorded sample (Weiss, 1980).

Speech sound (segmental) production:
This factor should be rated if the *Phonological Patterns* factor is not used. Determine developmental appropriateness by using the Iowa-Nebraska (I-N) norms (Smit, *et al*, 1990). These norms were originally published in a *Journal of Speech and Hearing Disorders* article and reflect the most recent and comprehensive normative study that has been reported. While results are comparable to those of Templin (1957), the I-N norms represent a larger normative sample. Sanders' (1972) report of normative data does not reflect data that is original to him, but rather represent a reinterpretation (albeit useful) or Templin's normative data.

Using norms to determine if therapy is warranted is not best practice, for students producing lateralized sibilants, because self correction does not usually occur with lateralization of sibilants. There is literature to support not using developmental norms to determine when to provide therapy for lateral /s/.

The literature also supports provision of therapy for developmental errors /r/ and /s/ at or around age 8. There is no support for the idea that error production become more resistant to correction and should be treated at an younger age.

Stimulability
Data suggests that lack of stimulability for a misarticulated sound is a good indicator of an

appropriate target for therapy, since ability to produce a sound is essential before children begin to acquire a sound or otherwise generalize from one context to another. Determine stimulability using the Miccio Probe (Miccio, A.W., 2002). Stimulability is determined for all error sounds, regardless of age appropriateness.

Use of the Miccio Probe is best described in Miccio's article in the American Journal of Speech-Language pathology.[2] "To facilitate quick administration of a stimulability probe, only sounds absent from the inventory are tested. The student is asked to imitate these specific consonants in isolation or nonsense syllables. Those sounds imitated correctly some of the time (at least 30% of possible opportunities) are presumed to be stimulable." If multiple sounds are absent from the inventory, the probe may be shortened by administering only one vowel context during the initial assessment. In the complete probe, a child has 10 opportunities to produce a sound: in isolation and in three word positions in three vowel contexts, [i], [u], and [a]. The corner vowel contexts: a high (or close) unround front vowel, a high round back vowel, and a low unround vowel usually reveal any consonant-vowel dependencies. If time does not permit the completion of the probe, stimulability is tested in isolation and with the vowel [a], for example, [sa], [asa], [as]"

Percentage of Consonants Correct
The procedures below are based on the recommendations of Shriberg and Kwiatkowski (1982), but are abbreviated for purposes of simplicity.

1. Obtain a tape-recorded connected speech sample that will include 90 different words – usually a sample of around 225 total words is sufficient. If the child is so unintelligible that it is impossible to identify this number of different words, then a single word assessment tool can be used to gather a corpus of single word productions for analysis.
2. Only consonants are scored, not vowels (i.e., only the consonantal /r/ is scored).
3. Score only the first production of a consonant if a syllable is repeated (e.g., ba-balloon. Score only the first production of /b/).
4. Do not score consonants if a word is unintelligible or only partially intelligible.
5. Errors include substitutions, deletions, distortions, and additions. Voicing errors are only scored for consonants in the initial position of words.
6. If /ng/ is replaced with /n/ at the end of a word, do not score it as an error. Likewise, minor sound changes due to informal speech and/or selection of sounds in unstressed syllables are not scored as errors (e.g.,/fider/ for "feed her," /dono/ for "don't know").
7. Dialectal variations are not scored as errors.
8. To determine the PCC value use the following formula:

$$\frac{\textbf{Number of Correct Consonants}}{\textbf{Total Number of Consonants}} \textbf{ X 100 = PCC}$$

[2] *Clinical Problem Solving: Assessment of Phonological Disorders.* ***Volume 11, Issue 3. Pages 221 - 229. August 2002***

Iowa - Nebraska Articulation Norms[3]

Listed below are the recommended ages of acquisition for phonemes and clusters, based generally on the age at which 90% of the children correctly produced the sound.

Phoneme	Age of Acquisition (Females)	Age of Acquisition (Males)
/m/	3;0	3;0
/n/	3;6	3;0
/ŋ/	7;0	7;0
/h-/	3;0	3;0
/w-/	3;0	3;0
/j-/	4;0	5;0
/p/	3;0	3;0
/b/	3;0	3;0
/t/	4;0	3;6
/d/	3;0	3;6
/k/	3;6	3;6
/g/	3;6	4;0
/f-/	3;6	3;6
/-f/	5;6	5;6
/v/	5;6	5;6
/θ/	6;0	8;0
/ð/	4;6	7;0
/s/	7;0	7;0
/z/	7;0	7;0
/ʃ/	6;0	7;0
/tʃ/	6;0	7;0
/dʒ/	6;0	7;0
/l-/	5;0	6;0
/-l/	6;0	7;0
/r-	8;0	8;0
/ɚ/	8;0	8;0

Word-Initial Clusters	Age of Acquisition (Females)	Age of Acquisition (Males)
/tw kw/	4;0	5;6
/sp st sk/	7;0	7;0
/sm sn/	7;0	7;0
/sw/	7;0	7;0
/sl/	7;0	7;0
/pl bl kl gl fl/	5;6	6;0
/pr br tr dr kr gr fr/	8;0	8;0
/θr/	9;0	9;0
/skw/	7;0	7;0
/spl/	7;0	7;0
/spr str skr/	9;0	9;0

Note regarding phoneme positions:
/m/ refers to prevocalic and postvocalic positions
/h-/ refers to prevocalic positions
/-f/ refers to postvocalic positions

[3] Smit, Hand, Freilinger, Bernthal, and Bird (1990). *Journal of Speech and Hearing Disorders*, 55, 779-798.

Miccio Stimulability Probe

Name:											
Transcriber:											
Date:											
Prompt: *"Look at me, listen, and say what I say."*											
Sound	Isolation	__i	i_i	i__	__a	a_a	a_	__u	u_u	u_	% Correct
p											
b											
t											
d											
k											
g											
θ											
ð											
f											
v											
s											
z											
ʃ											
ʒ											
tʃ											
dʒ											
m											
n											
ŋ											
w											
j											
h											
l											
r											

PERCENTAGE CONSONANTS CORRECT (PCC)

Child_____ Date of Birth _____

PCC Scoring Date_____ Speech-Language Pathologist _____

Consonant Class	Consonant Sound	Initial	Medial	Final	Number of Consonants Correct	Total No. Consonants
Nasal	/m/					
	/n/					
	/ŋ/					
Glides	/w/					
	/j/					
Stops	/p/					
	/b/					
	/t/					
	/d/					
	/k/					
	/g/					
Fricatives/ Affricates	/f/					
	/v/					
	/ʃ/					
	/ʒ/					
	/s/					
	/z/					
	/j/					
	/θ/					
	/ð/					
	/dʒ/					
	/h/					
Liquids	/l/					
	/r/					
				TOTALS		

# of Consonants Correct **=** **PCC**
Total # of Consonants

ARTICULATION RATING SCALE
OVERALL FUNCTIONAL LEVEL

Level 0 (0 – 3 points) No apparent problem	The student's connected speech during educational activities is consistently understood and not distracting to the listener. Student's verbal participation in educational activities is rarely limited by self-consciousness or listener reaction.
Level 1 (4 – 6 points) Mild	The ability to understand the student's connected speech in educational activities may be affected by listener familiarity and/or knowledge of the context. The student's articulation is occasionally distracting to the listener. The student's verbal participation in educational activities may occasionally be limited by self-consciousness about listener reactions to his/her speech.
Level 2 (7 – 9 points) Moderate	The student's connected speech in educational activities requires context cues to be understood. The student's articulation is usually distracting to the listener. The student is aware of errors. The student's verbal participation in educational activities may frequently be limited by self-consciousness about listener reactions to his/her speech.
Level 3 (10 - 12 points) Severe	The student's connected speech in educational activities is rarely understood in known context. The student may or may not be aware of errors and is rarely stimulable for correct production. The student's verbal participation in educational activities is usually limited by self-consciousness about listener reactions to his/her speech.

ARTICULATION SEVERITY RATING SCALE

Factors		No Apparent Problem (0 pts)	Mild (1 pt)	Moderate (2 pts)	Severe (3 pts)	Points Assigned
A	Intelligibility (connected speech)	Age 3: 75% or > Age 4: 85% or > Age 5 and up: 90% or >	Age 3: 65–75% Age 4: 75 – 85% Age 5 and up: 80 – 90%	Age 3: 50 – 65% Age 4: 65 – 75% Age 5 and up: 70 – 80%	Age 3: <50% Age 4: <65% Age 5: <70%	
B Use B1 OR B2, not both	1. Speech sounds (segmental productions)	Meets Iowa-Nebraska (I-N) norms for acquisition of phonemes and clusters	1 – 2 sounds do not meet I-N norms for acquisition of phonemes and clusters	3 – 4 sounds do not meet I-N norms for acquisition of phonemes and clusters	5 or more sounds do not meet I-N norms for acquisition of phonemes and clusters	
	2. Phonological Processes	No error processes.	One or more of the following error processes occur in 40% or more available opportunities: • gliding of liquids • cluster reductions with /s/ • vowelization of post-vocalic liquids (/r/, /l/)	One or more of the following error processes occur in 40% or more of available opportunities: • weak syllable deletion depalitization of initial singletons • cluster reduction with /l/, /r/, /w/ • fronting of initial velars Presence of Level 1 processes at 20% or greater	One or more of the following error processes occur 40% of more of available opportunities: • initial consonant deletion • final consonant deletion • stopping • depalitization of final singletons Presence of Level 1 and/or 2 processes at 15% or greater	
C	Stimulability (Miccio Probe)	Error sounds are 90% stimulable	Error sounds are 60 – 90% stimulable.	Error sounds are 50 - 60% stimulable.	Error sounds are less than 50% stimulable.	
D	Percentage of Consonants Correct (PCC)	PCC value more than 95%	PCC value of 85 – 95%	PCC value of 50 – 85%	PCC value less than 50%	
					TOTAL POINTS	